

# IDH1 Rabbit mAb

Catalog No.: A24133 **Recombinant**

## Basic Information

**Observed MW**

47 kDa

**Calculated MW**

47kDa

**Category**

Primary antibody

**Applications**

WB,IF/ICC,ELISA

**Cross-Reactivity**

Human, Mouse, Rat

**CloneNo number**

ARC54139

## Background

Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene.

## Recommended Dilutions

**WB** 1:1000 - 1:5000**IF/ICC** 1:50 - 1:200**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

**Gene ID**

3417

**Swiss Prot**

O75874

**Immunogen**

Synthetic peptide. This information is considered to be commercially sensitive.

**Synonyms**

IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26; IDH1

## Contact

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## Product Information

**Source**

Rabbit

**Isotype**

IgG

**Purification**

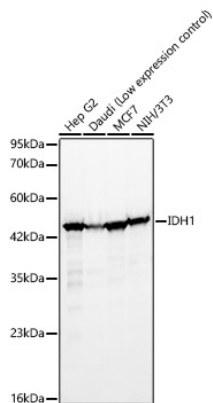
Affinity purification

**Storage**

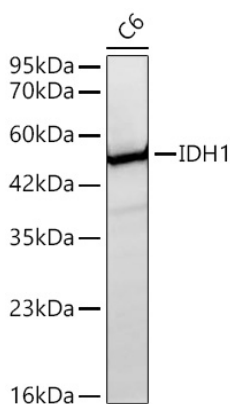
Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol and 0.05% BSA, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

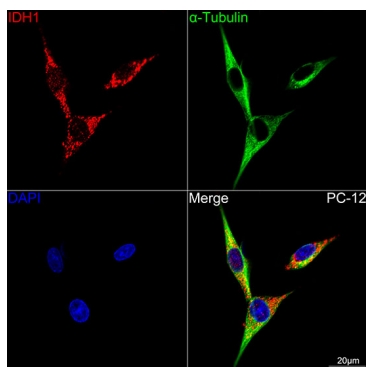
## Validation Data



Western blot analysis of various lysates using IDH1 Rabbit mAb (A24133) at 1:1000 dilution.  
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates / proteins: 25 µg per lane.  
Blocking buffer: 3 % nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 15s.



Western blot analysis of lysates from C6 cells using IDH1 Rabbit mAb (A24133) at 1:1000 dilution incubated overnight at 4°C.  
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.  
Lysates/proteins: 25 µg per lane.  
Blocking buffer: 3% nonfat dry milk in TBST.  
Detection: ECL Basic Kit (RM00020).  
Exposure time: 20s.



Confocal imaging of PC-12 cells using IDH1 Rabbit mAb (A24133, dilution 1:200) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with  $\alpha$ -Tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.